

Connecting LCA Commons unit process cutoffs to EcoInvent 2.2 – using crosswalk unit processes

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USDA LCA Commons crop production data contains unit processes at the farm level—upstream unit processes are not currently included. Intermediate exchanges in the crop production data set that are not mapped to a unit process in the LCA Commons database have a name prefixed with the word “CUTOFF”. In order to perform an LCI, a set of crosswalk unit process are provided to connect LCA Commons exchanges with equivalent EcoInvent unit processes, where appropriate, for use in OpenLCA. Note: there are many cutoffs in the crop production datasets without crosswalks due to the differences in scope between the LCA Commons and EcoInvent.

OpenLCA connects unit processes together through flows and exchanges; a process that produces a certain flow can be connected to another process that receives that flow. The LCA Commons crosswalks are a set of unit processes that have a LCA Commons CUTOFF as a reference product, and a single EcoInvent2.2 flow as an input. Through these crosswalk unit processes, the LCA Commons intermediate exchanges are mapped to their analogous unit process in EcoInvent.

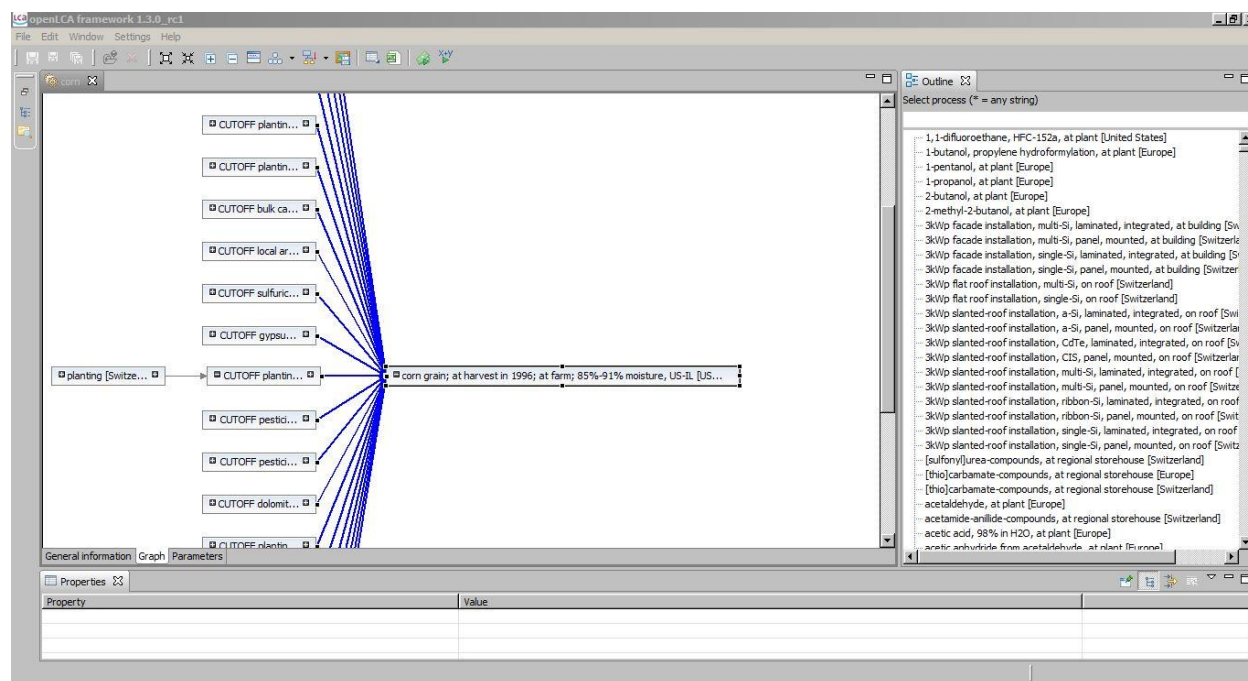


Figure 1: OLCA screenshot with LCA Commons unit process at right, crosswalks at center, and EcoInvent2.2 at left

Perform the following steps to connect an LCA Commons dataset to EcoInvent 2.2.

- Create a new database, with “Complete reference data”
- Import an LCA Commons dataset

- Import the EcolInvent dataset
- Import the crosswalk dataset
- Build the product system, and select “add connected processes”. The crosswalks should automatically connect the LCA Commons crop production dataset to the appropriate EcolInvent dataset.

A note of caution

These crosswalks are strictly a connection between the LCA Commons dataset and the EcolInvent dataset. Although the connection exists, there is no reason to believe that this connection is suitable for your particular application. *Verification of the documentation*, and consideration of *your study’s Goal and Scope* is necessary when using data from different sources and providers. A guarantee of quality results from using these crosswalks is neither given nor implied.